WHAT IS CLAIMED IS:

1. A substrate that comprises:

a promoter primer that can be extended to form a transcribable template nucleic acid; and

a capture probe, wherein the promoter primer and the capture probe are non-complementary, and the capture probe can specifically bind to a target nucleic acid or complement thereof.

2. The substrate of claim 1 wherein the substrate is planar.

3. The substrate of claim 1 wherein the capture probe is exactly complementary to the target nucleic acid.

4. The substrate of claim 1 wherein the capture probe is un-extendable.

5. The substrate of claim 1 wherein the capture probe is attached to the substrate by its 3' end.

6. The substrate of claim 1 wherein the 3' end of the capture probe lacks a terminal hydroxyl.

7. The substrate of claim 1 wherein the promoter primer comprises a polyT sequence that can anneal to the 3' end of eukaryotic mRNAs.

8. The substrate of claim 7 wherein the polyT sequence terminates with a mono or dinucleotide other than T at the 3' most region of the promoter primer.

9. The substrate of claim 1 wherein the promoter primer comprises a target specific sequence that can anneal to a target RNA or DNA sequence.

10. The substrate of claim 1 wherein the promoter primer comprises a sequence that is recognized by a prokaryotic RNA polymerase to initiate transcription.

11. The substrate of claim 1 further comprising a microchannel that places a region of the substrate occupied by the promoter primer in fluid communication with a region occupied by the capture probe.

12. A method comprising:

providing the substrate of claim 1;

contacting a sample to the substrate;

forming template nucleic acids by extending the promoter primer;

transcribing the template nucleic acids, thereby providing transcripts; and

evaluating binding of the transcripts to the capture probe.

13. The method of claim 12 wherein the promoter is a prokaryotic promoter.

14. The method of claim 12 wherein the transcribing is effected in the presence of a labeled ribonucleotide that can be incorporated into the transcripts.

15. The method of claim 12 wherein the evaluating comprises detecting presence of the labeled ribonucleotides incorporated into the transcripts that bind to the capture probe.

16. The method of claim 12 wherein the evaluating comprises contacting a detector probe to the substrate, wherein the detector probe can specifically anneal to a region of the target nucleic acid that does not overlap with the capture probe.

17. The method of claim 12 wherein the detector probe comprises a label.

18. A substrate that comprises:

immobilized template nucleic acids that comprise a promoter region;

one or more RNA polymerases that can collectively transcribe the immobilized template nucleic acids, and

a capture probe that can hybridize to a target nucleic acid, if present.

19. The substrate of claim 18 further comprising a detector probe.

20. The substrate of claim 19 wherein the capture probe is immobilized, but the detector probe is present in a diffusable form on the substrate.

21. The substrate of claim 18 wherein the RNA polymerases are provided in a crystalline form.

22. A substrate comprising a plurality of regions, wherein each region comprises

(a) a promoter primer that can be extended to form a transcribable template nucleic acid, and

(b) a first capture probe.

23. The substrate of claim 22 wherein the first capture probe of each region is non-extendable.

24. The substrate of claim 22 wherein the first capture probe and the promoter primer do not interact.

25. The substrate of claim 22 wherein the promoter primer cannot be extended

26. The substrate of claim 22 wherein the promoter primer and the first capture probe are both covalently coupled to the substrate.

27. The substrate of claim 22 wherein each region further comprises a second capture probe.

28. The substrate of claim 27 wherein the first and second capture probe can detect different cellular nucleic acids.

29. The substrate of claim 27 wherein the first and second capture probes recognize different regions of a common cellular nucleic acid, and the plurality of regions includes regions for different cellular nucleic acids.

30. A nucleic acid detection kit comprising

the substrate of claim 1 or 22 ; and

a detector nucleic acid.

31. The kit of claim 30 further comprising reagents for forming a transcribable template nucleic acid from the promoter primer.

32. The kit of claim 30 wherein the detector nucleic acid is labeled.

33. A device comprising:

(a) means for forming transcribable templates for a plurality of different nucleic acids,

(b) means for capturing specific nucleic acids, and

(c) means for supporting (a) and (b).

34. A method comprising:

contacting a sample to a substrate that comprises an immobilized promoter primer, wherein the promoter primer includes a sequence that forms at least one strand of a transcription recruitment sequence and an annealing sequence;

producing a transcribable nucleic acid template by extended the promoter primer, if the sample contains a sequence that can hybridize to the annealing sequence;

transcribing the transcribable nucleic to produce transcripts; and

evaluating interaction between transcripts and a capture probe without removing the transcripts from the substrate.

35. The method of claim 34 wherein the capture probe is immobilized on the substrate.

36. The method of claim 34 wherein the capture probe is immobilized on the substrate prior to contacting the sample to the substrate.

37. The method of claim 34 wherein the promoter primer is immobilized on the substrate prior to contacting the sample to the substrate.

38. The method of claim 34 wherein the evaluating comprises hybridizing detector probe(s) to the transcripts and washing detector probe(s) that are not attached to the substrate in a complex that comprises the capture probe and the transcript from the substrate.

39. The method of claim 34 wherein the sample includes less than 1 pg of the target nucleic acid.

40. A method of providing a substrate, the method comprising:

providing a substrate that comprises a plurality of regions; and

modifying the substrate so that each region comprises

(a) a promoter primer that can be extended to form a transcribable template nucleic acid, and

(b) a capture probe.

41. The method of claim 40 wherein the modifying comprises synthesizing the promoter primer and/or the capture probe on the substrate.

42. The method of claim 40 wherein the modifying comprises disposing the promoter primer and the capture probe on the substrate.

43. The method of claim 42 wherein the promoter primer is disposed in one subregion of the region, and the capture probe is disposed in another subregion of the region.

44. The method of claim 40 wherein the substrate comprises demarcations that physically separate the regions of the plurality from each other.